

Appl. No.: 10/803,393

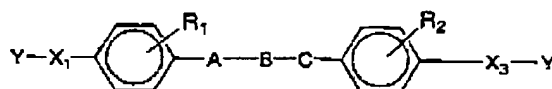
Amdt. dated 02/02/2006

Reply to Office Action of October 3, 2005

Amendments to the Claims:

Claims 1 – 14 (Cancelled)

15. (Previously Presented) A photosensitive composition for optical waveguides comprising an organic oligomer and a polymerization initiator, said organic oligomer being an oligomer represented by the following formula (5a):



(5a)

wherein R_1 and R_2 may be the same as or different from each other, and denote hydrogen, halogen, an alkyl group, an alkoxy group or a trifluoromethyl group; X_1 , and X_3 may be the same as or different from each other, and denote a connection group including at least one selected from the group consisting of an alkyleneoxy and oxyalkylene group; Y denotes a polymerization activating group containing acrylic or methacrylic group and A denotes a connection group selected from a linear or branched alkylene group; B denotes a connection group selected from the group consisting of a substituted or an unsubstituted phenylene; C denotes a connection group selected from alkyleneoxy.

16. (Canceled)

17. (Original) A method of forming a polymer optical waveguide pattern, comprising the steps of:

applying and drying a photosensitive composition for optical waveguides;
irradiating said resultant photosensitive composition thin film for optical waveguides with light through a mask; and

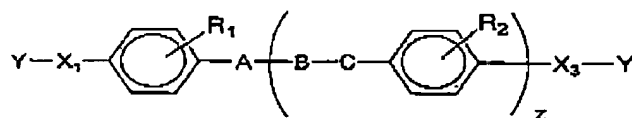
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directly forming a core-ridge pattern by wet etching said photosensitive composition thin film;

wherein the photosensitive composition for optical waveguides as claimed in Claim 15 is used as said photosensitive composition for optical waveguides.

Claims 18-20 (Cancelled)

21. (Previously Presented) A photosensitive composition for optical waveguides comprising an organic oligomer and a polymerization initiator, said organic oligomer being an oligomer represented by the following formula (5b):

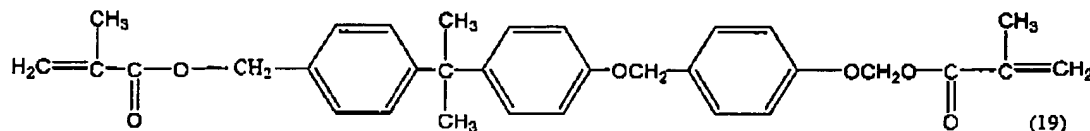


(5b)

wherein R_1 and R_2 may be the same as or different from each other, and denote hydrogen, halogen, an alkyl group, an alkoxy group or a trifluoromethyl group; X_1 and X_3 may be the same as or different from each other, and denote a connection group including at least one selected from the group consisting of an alkyleneoxy and oxyalkylene group; Y denotes a polymerization activating group containing an epoxy group and A denotes a connection group selected from a linear or branched alkylene group; B denotes a connection group selected from a substituted or an unsubstituted oxyalkylene; C denotes a connection group selected from oxyalkylene, said oxyalkylene of B and said alkyleneoxy C including at least one OH group; and $z = 1$ or 2 .

22. (Currently amended) A ~~[[The]]~~ photosensitive composition for optical waveguides comprising an organic oligomer and a polymerization initiator, said organic oligomer represented by the following formula claimed in claim 15, wherein said organic oligomer is selected from the compound having the following formula (19):

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Claims 23 – 26 (Cancelled)

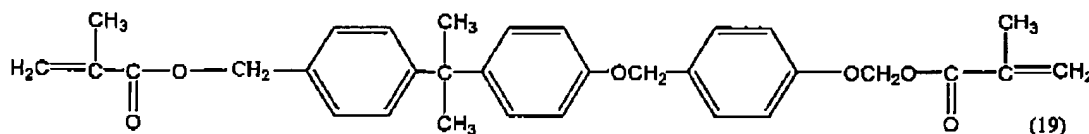
27. (Currently amended) A [[The]] method of forming a polymer optical waveguide pattern comprising the steps of:

applying and drying a photosensitive composition for optical waveguides;

irradiating said resultant photosensitive composition thin film for optical waveguides with light through a mask; and

directly forming a core-ridge pattern by wet etching said photosensitive composition thin film;

wherein the photosensitive composition for optical waveguides as claimed in claim 17,
~~wherein said organic oligomer is selected from the compound having~~ has the following formula (19):



28. (Previously Presented) A method of forming a polymer optical waveguide pattern, comprising the steps of:

applying and drying a photosensitive composition for optical waveguides;

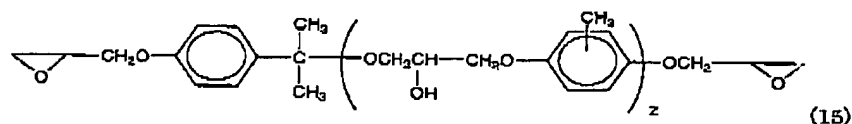
irradiating said resultant photosensitive composition thin film for optical waveguides with light through a mask; and

directly forming a core-ridge pattern by wet etching said photosensitive composition thin film;

wherein the photosensitive composition for optical waveguides as claimed in Claim 21 is used as said photosensitive composition for optical waveguides.

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29. (Previously Presented) The photosensitive composition for optical waveguides claimed in claim 21, wherein said organic oligomer is selected from the compound having following formula (15):



wherein $z = 1$ or 2 .

30. (Previously Presented) The method of forming a polymer optical waveguide pattern as claimed in claim 28, wherein said organic oligomer is selected from the compound having following formula (15):

